IN THE SPECIFICATION

[48] Fig. 38 is a diagrammatic illustration of a Product Watch Details Dialog, according to an embodiment of the present invention[[;]].

[50] A data link 106 is coupled to the data module ~~102A, 102B, 102C~~ 104.

[55] At the mine site 304 are located a dispatcher 306 and a service center 308. The dispatcher 306 coordinates the operation of the mine site, including scheduling of the vehicles' operation and scheduling vehicle maintenance. The service center ~~306~~ 308 performs routine maintenance and repairs.

[61] Each machine or work vehicle 102, 302 includes a data module 104. In the preferred embodiment, the data module 104 is microprocessor based. The data module 104 receives data from a plurality of sources on the machine or vehicles. For example, the types of sources include sensors and/or electronic control modules (ECM). Typically, electronic control modules are used to control one subsystem of the vehicle, for example, the vehicle's engine or transmission. The ECM uses sensor information and may also generate its own set of parameters. The ECM may transfer the sensor information it receives and some of the parameters it generates internally to the ~~monitor~~ data module 104.

[63] With reference to ~~Fig.s~~ Figs. 4-38, the present invention provides a graphical user interface 400 for use by the user 110 to interface with the system 100.

[74] The Distance Section 414 includes a State Dropdown List ~~430~~ 432, a City Dropdown List ~~432~~ 434, and a Distance Dropdown List 436.

[76] Upon initialization of the computer program or actuation of the Search Equipment Button 1002, all fields within the Equipment Information Section 412,

Distance Section 414, Rental Status Section 416 and Registration Status Section 418 are set to default value. The user 110 manipulates the Dropdown Lists 422, 424, ~~246~~ 426, 428, 432, 434, 436, and Check Boxes 438, 440, 442, 444 to identify the machine subset of the machines 102, 302 to include. Once the user 110 has identified or manipulated all of the data, the user 110 actuates the Find Button 420 to generate a report.

[81] The Viewing Section 1204 includes a Start Message Box ~~1216~~ 1218 and an End Message Box 1220 which identify the first and last message displayed in the List Section 1206. The Viewing Section 1204 also includes a Back Button 1222 and a More Button 1224 which are used to manipulate the messages displayed. The List Section 1206 includes a plurality of columns 1226 and rows 1228. Messages or communications between the corresponding machine, 102, 302 and the display module 108 are listed in the rows 1228. Certain machine parameters are displayed in the columns 1226. In the preferred embodiment, the Message History Dialog 1200 includes a Status Check Box 1230, a Location Check Box 1232, an SMU Check Box 1234 and Fuel Check Box 1236. The Check Boxes 1230, 1232, ~~1324~~ 1234, 1236 are used to enable the columns 1226. As shown, the List Section 1206 includes a Date Time Column 1238, an SMU column 1240, a Fuel Column 1242, and a Location Column 1244. The message history dialog further includes a Closed Button ~~1244~~ 1246. Upon actuation of the Closed Button ~~1244~~ 1246, the message history dialog is closed.

[84] As shown, the List 1306 includes a Level Column 1334, a Date Time Stamped Column 1336, a Description Column 1338, a Module Column 1340, a Codes Column 1342 and an Occurrences Column 1344. The Modules Column ~~1320~~ 1340 identifies a particular module on the machine 102, 302 from which a particular event originated. The Occurrences Column ~~1342~~ 1344 includes a number representing the number of times a particular event occurred.

[85] The Event History Dialog 1300 further includes a Request Update Button 1346 and a Close Button 1348. Actuation of the Request Update Button 1346 sends a request over the data link ~~100~~ 106 for an update of the parameters of the corresponding machine 102, 302. Actuation of the Closed Button ~~1448~~ 1348 closes the Event History Dialog 1300.

[95] The Command Type Information Section 1704 includes a plurality of Radio Buttons 1716. As shown, the Radio Buttons include a Query For Location Radio Button 1716A, a Query For SMU Radio Button 1716B, a Query For Fuel Radio Button 1716C, a Query For Status Radio Button 1716D, a Query For Event Radio Button 1716E, a Query For Product Watch Radio Button, 1716F, a Billing Deactivation Button 1716G, a Billing Reactivation Radio Button 1716H, a Registration Request Radio Button 1716I, a Forced Deregistration Radio Button 1716J, a Deregistration Radio Button 1716K and a Clear Events Radio Button ~~1716K~~ 1716L. The Command Type Information Section 1704 also includes a Queue Command Button 1718.

[99] With reference to Fig. 18, upon actuation of the Reports Button 1006 of the Tool Bar 404 or selection of the Reports Item [[1]]806 on the Tasks Submenu 800, a Reports Screen 1800 is displayed in the Product Link System Panel 406. The Reports Screen 1800 includes an Equipment Report Menu 1802 and a Report Options Section 1804.

[117] The user 110 controls the machines 102, 302 for which events are displayed in the list 2430 by manipulation of the Dropdown Lists 2408, 2410, 2412, 2414. The Event Reactions Screen 2400 also includes a List By Make Button 2436, a List By Make and Model Button 2438, a List By Make, Model and Serial Number Button 2440 and a List All Button ~~2342~~ 2442. Actuation of the Buttons 2436, 2438, 2440, 2442 changes the order in which reactions are displayed in the list 2430.

[123] The Find Section 2804 includes a General Button 2816, a Transmission Button 2818, a Digital Button 2820 and a ~~PO101~~ PL101 Button 2822. The Viewing Section 2806 includes a Start Box 2824 and an End Box 2826, a Back Button 2828 and a More Button 2830. The View Registry Screen 2800 also includes a list 2832. The Viewing Section 2806 controls the items listed in the list 2832.

[128] With reference to Fig. 30, upon actuation of the digital button 2820 a list of digital information for the machine selected in the Equipment Information Section ~~2082~~ 2802 is displayed in the List 2832.

[131] With reference to Fig. 33, upon actuation of the Grief Button 1014 or selection of the View Grief Item 708 from the view menu submenu 700, a View Grief Screen 3300 is displayed in the Product Link System Panel 406. The View Grief Screen 3300 includes an Equipment Information Section 3302 and a Viewing Section 3304. The View Grief Information Screen displays a List 3306 of grief reports for the selected machines. The Equipment Information Section 3302 includes a Machine Make Dropdown List 3308, a Machine Model Dropdown List 3310, a Serial Number Dropdown List 3312 and a Unit Identifier Dropdown List 3314. The user 110 selects a machine or machines 102, 302 using the Dropdown Lists [[3306, ]]3308, 3310, 3312, 3314. The Viewing Section 3304 includes a First Element Textbox 3316 and a Last Element Textbox 3318 which identify the messages listed in the list 3306. The viewing section 3304 also includes a Back Button 3320 and a More Button 3322 for controlling the items listed in the List 3306. The View Grief Screen 3300 also includes a Find Button 3324 and a Clear All Button 3326. The Find Button 3324 displays the grief reports received from the machines 102, 302 identified in the Equipment Section 3302. The Clear All Button 3326 removes all items from the List 3306. The List 3306 includes a plurality of rows 3328 and a plurality of columns 3330. The grief reports received from the machines 102, 302 identified in the Equipment Information Section 3302 are displayed in the rows. Parameters of these

machines are identified in the columns 3330 including a description 3332 of the received grief report.

[132] With reference to Fig[[s]]. 34, upon actuation of the Product Watch Button 1020, a Product Watch Screen 3400 is displayed in the Product Link System Panel 406. The Product Watch Screen 3400 allows the user 110 to set up a product watch for a particular machine or groups of machines 102,302.

[134] The Product Watch Screen 3400 also includes an Add Button 3412, an Add All Button 3414, a Remove Button 3416, and a Remove All Button 3418. Actuation of the Add Button ~~3416~~ 3412 adds selected machines in the Units Available Section ~~3408~~ 3402 to the Units Selected Section 3404. Actuation of the Add All Button ~~3418~~ 3414 adds all of the machines in the Units Available Section ~~3408~~ 3402 to the Units Selected Section 3404. Actuation of the Remove Button 3416 removes the selected machines in the Units Selected Section 3404. Actuation of the Remove All Button 3418 removes all of the machines from the Units Selected Section 3404.

[138] When the Inclusive Tab 3504 is active an Inclusive Panel 3510 is displayed in the Setup-Change Product Watch Dialog 3500. The Inclusive Panel 3510 includes a Select Position Section 3512, a Start Date Section 3514, and an End Date Section 3516. The Select Position Section 3512 includes a Latitude Input Section 3518, a Longitude Input Section 3520, and a Radius Input ~~3522~~ 3521.

[141] The Setup-Change Product Watch Dialog 3500 also includes a Queue Button 3528 and a Cancel Button 3530. Actuation of the Queue Button 3528 delivers the product watch parameters to the system 100. Actuation of the ~~Close~~ Cancel Button 3530 closes the Setup-Change Product Watch Dialog 3500.

[145] The Watchtime Panel 3700 includes a Load Button 3708 for applying the data in the Days Section 3702 and the Working Hours Section 3704 to selected product watches in the List ~~3606~~ 3706.

[146] With reference to Fig. 38 upon selection of the Working With Product Watch Descriptions Item 818, a Product Watch Details Dialog 3800 is displayed. The Product Watch Details Dialog 3800 ~~contained~~ contains detailed information regarding the product watch defined for the selected machine. The Product Watch Details Dialog 3800 includes an Inclusive Text Box 3802, an Exclusive Text Box 3804, and a Time Text Box 3806.

[147] The Product Watch Details Dialog 3800 also includes a Backward Button 3808, a Forward Button 3810 and a Close Button 3812. Actuation of the Backward Button 3808 displays product watch information for a previous machine. Actuation of the Forward Button 3810 displays product watch information for a next machine. Actuation of the Close Button 3812 dismisses the Product Watch Details Dialog ~~3812~~ 3800.

~~[148] Other aspects, objects and advantages of this invention can be obtained from a study of the drawings, the disclosure and the appended claims.~~

[149] The present invention provides a method and system 100 for relaying information between a plurality of machines 102, 302 and a central location 112, 310 and displaying the information for a selected subset of the machines 102, 302. For example, the central location 112, 310 may be located at a work machine dealer's facility. The dealer may receive information for all of the work machines that the dealer has sold and/or on which the dealer performs maintenance.